

**Commonwealth of Kentucky**  
**Division for Air Quality**  
***RESPONSE TO COMMENTS***

ON THE TITLE V DRAFT PERMIT NO. V-06-026  
E.I. DUPONT DE NEMOURS AND COMPANY  
HC-66 400 HARRIS ROAD, WURLAND, KY 41144  
SEPTEMBER 29, 2006  
CAROLINA ALONSO, REVIEWER  
SOURCE I.D. #: 021-089-00001  
SOURCE A.I. #: 1589  
ACTIVITY #: APE20040001

**SOURCE DESCRIPTION:**

E.I. DuPont De Nemours and Company (DuPont) located in Wurland, Kentucky, produces sulfuric acid oleum, sulfur trioxide (SO<sub>3</sub>), chlorosulfonic acid (CSA), and SO<sub>3</sub>/CSA blend. The source is a major source, as defined by 401 KAR 52:020 Title V Permits, for the potential emissions of over 100 tons per year of sulfur dioxide (SO<sub>2</sub>), and particulate matter less than 10 microns (PM<sub>10</sub>). The source has several construction and state origin permits and has applied for a source wide Title V permit. The source is also a major source as defined in 401 KAR 51:001 for Prevention of Significant Deterioration of the Air Quality (PSD), however permit V-06-026 is not subject to PSD review. Significant emission points include:

Sulfuric Acid Production Process (EP 01)  
Oleum Storage and Barge Loading (EP 02)  
Emergency Boiler (EP 03)  
Chlorosulfonic Acid Reactor (EP 04)  
Chlorosulfonic Acid Storage Tanks (EP 05 and EP 08)  
Chlorosulfonic Acid Loading Facility (EP 06)  
Sulfuric Acid Bulk Storage Tanks (EP 07)  
CSA/SO<sub>3</sub> Blend Reactor (EP 09)  
Blend Reactor Pipeline Equipment (EP 10)

**PUBLIC AND U.S. EPA REVIEW:**

On August 17, 2006, the public notice on availability of the draft permit and supporting material for comments by persons affected by the plant was published in *The Greenup County News-Times* in Greenup County, Kentucky. The public comment period expired 30 days from the date of publication.

Comments were received from DuPont on September 12, 2006. Attachment A to this document lists the comments received and the Division's response to each comment. Minor changes were made to the permit as a result of the comments received, however, in no case were any emissions standards, or any monitoring, recordkeeping or reporting requirements relaxed. Please see Attachment A for a detailed explanation of the changes made to the permit. The U.S. EPA has 45 days to comment on this proposed permit.

**CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.

# ATTACHMENT A

## Response to Comments

Comments on E.I. DuPont De Nemours and Company (DuPont) Draft Title V Air Quality Permit submitted by Tim A. Albert, Plant Manager for DuPont.

The comments received are highlighted in each document, a copy is enclosed in Attachment B and the Division's response will be referred to the comment number in the aforementioned documents:

### Permit Application Summary Form

#### Comment #1

*Division's response:* Pursuant to 401 KAR 50:010 Section 1(96), "Particulate Matter means a material, except uncombined water, which exists in a finely divided form as a liquid or a solid as measured by the appropriate approved test method". Potential emissions of PM/PM<sub>10</sub> include H<sub>2</sub>SO<sub>4</sub> mist and HCl mist so the number may be higher than expected and has not been changed.

Potential emissions for SO<sub>2</sub> have been calculated, based on the permit application, to be 3484.40 tons per year, so this number has not been changed.

#### Comment #2

*Division's response:* comment acknowledged, change has been made.

#### Comment #3

*Division's response:* comment acknowledged, change has been made.

### Statement of Basis

#### Comment #4

*Division's response:* comment acknowledged, change has been made.

#### Comment #5

*Division's response:* comment acknowledged, change has been made.

#### Comment #6

*Division's response:* comment acknowledged, change has been made.

#### Comment #7

*Division's response:* comment acknowledged, change has been made.

#### Comment #8

*Division's response:* comment acknowledged, change has been made.

#### Comment #9

*Division's response:* comment acknowledged, change has been made.

Comment #10

*Division's response:* comment acknowledged, no changes requested at this time.

Comment #11

*Division's response:* comment acknowledged, change has been made.

Comment #12

*Division's response:* comment acknowledged, change has been made.

Comment #13

*Division's response:* comment acknowledged, change has been made.

Comment #14

*Division's response:* comment acknowledged, change has been made. Also, the table headings have been changed to reflect that limits are also coming from permit S-94-061.

**Draft Permit**

Comment #15

*Division's response:* comment acknowledged, change has been made.

Comment #16

*Division's response:* comment acknowledged, change has been made.

Comment #17

*Division's response:* comment acknowledged, change has been made.

Comment #18

*Division's response:* comment acknowledged, change has been made.

Comment #19

*Division's response:* comment acknowledged, change has been made.

Comment #20

*Division's response:* comment acknowledged, the suggested language has been added to the Statement of Basis document under Emissions and Operating Caps Description.

Comment #21

*Division's response:* comment acknowledged, the following language has been added to the compliance demonstration method: "The 27.6 lb/ton acid produced shall be based on 3-hour rolling average"

Comment #22

*Division's response:* permit O-91-007 establishes emission limits for emission point 07 (three sulfuric acid storage tanks). In order to incorporate the existing limits into permit V-06-026, emission point 07 has been kept in Section B of the permit even though it qualifies to be an insignificant activity.

Comment #23

*Division's response:* comment acknowledged, change has been made.

Comment #24

*Division's response:* the emission factor in the permit will be used to show compliance until stack testing and new emission factors and/or control efficiencies are determined and approved by the Division for Air Quality. Language in permit has been changed to reflect this statement.

Comment #25

*Division's response:* see response to comment #22

Comment #26

*Division's response:* Boilers #1 and 2 and Superheaters #1 and 2 are part of a significant emission point and as such they are subject to applicable limitations/requirements. The requested language has not been removed from the permit.

Comment #27

*Division's response:* the requested changes cannot be made, the language for this condition comes from 401 KAR 61:030 Section 5 (4) so it should not be changed. A minor modification to the language has been made at the end of the condition to clarify a reference to a different condition: "Acid mist and sulfur dioxide emissions, expressed in g/metric ton of 100 percent sulfuric acid shall be determined by dividing the emission rate in g/hr by the acid production rate. The emission rate shall be determined by the equation  $g/hr = (QS)(c)$ , where QS = volumetric flow rate of the effluent in dscm/hr as determined in accordance with subsection (1)(c) of this section and c = acid mist and sulfur dioxide concentrations in g/dscm as determined in accordance **with 401 KAR Section 5 (1)(a)**"

Comment #28

*Division's response:* comment acknowledged, the Maximum Rated Capacity was changed to read "38693 tons 100% sulfuric acid" (4.417 tons/hr x 8760hrs/year is 38693 and not the suggested 38963)

Comment #29

*Division's response:* comment acknowledged, change has been made.

Comment #30

*Division's response:* comment acknowledged, emission point 08 has been deleted from Section B of the permit.

Comment #31

*Division's response:* comment acknowledged, change has been made.

Comment #32

*Division's response:* comment acknowledged, change has been made.

Comment #33

*Division's response:* comment acknowledged, change has been made. Also, the table headings have been changed to reflect that limits are also coming from permit S-94-061.

Comment #34

*Division's response:* The requested language has been changed to allow calculation based on a monthly rate, but the calculated emissions shall be in lbs/hour in order to be comparable to the established emission limits.

Comment #35

*Division's response:* comment acknowledged, change has been made.

Comment #36

*Division's response:* comment acknowledged, change has been made.

Comment #37

*Division's response:* comment acknowledged. The list of insignificant activities has been updated as requested by the source except for the sulfuric acid tanks (see comment #22)

Comment #38

*Division's response:* the compliance demonstration method has not changed. Emissions modeling submitted by DuPont exceeded the standards set in 401 KAR 53:010 for PM<sub>10</sub>. In order to assure that DuPont will not be out of compliance in the future, emissions shall be modeled on a yearly basis and compared to ambient air quality standards. If exceedances occur, violations shall be reported and corrective actions taken.

## **ATTACHMENT B**

Comments Submitted by E.I. DuPont De Nemours and Company